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United States Department of State
Bureau of Intelligence and Research

INTERNATIONAL BOUNDARY STUDY

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No. 175 - July 17, 1985

BRAZIL - VENEZUELA BOUNDARY

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Brazil-Venezuela Boundary

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Office of The Geographer
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Boundary Brief

From the Brazil-Guyana-Venezuela tripoint on Mount Roraima, the Brazil-Venezuela boundary follows the crests of the Sierra Pacaraima, the Sierra Parima, the Sierra Tapira Peco, and the Sierra Imeri to Sierra Cupy (Mount Cupy) in the vicinity of Catarata de Hua (Hua Falls) in the Canal Maluraca (Maturaca channel; see map 1, p. 2). This series of highland ridges forms the watershed divide between the Orinoco and the Amazon river systems in its eastern extension and the tributaries of the Rio Siapa and the Rio Negro near Mount Cupy. Turning northwestward from Hua Falls, the boundary follows straight line segments to the Colombian tripoint at the thalweg of the upper Rio Negro. Delimited by an 1859 treaty and modified by subsequent protocols, the 2,200-kilometer boundary is demarcated throughout its length.

Background

Spain and Portugal were never able to agree on a precise dividing line between their New World possessions. The Treaty of Tordesillas (1494) had provided Portugal a foothold of suzerainty on the eastern bulge of South America, but ambitious explorers, ever in search of the fabled El Dorado and the city ruled by women, quickly rendered this ill-defined line obsolete (see map 2, p. 3). By the end of the 17th century the question of where to separate Spanish and Portuguese authority focused primarily on the Amazon basin.

Little known and thinly populated, the basin represented the margins of migration for Portuguese moving west from the Atlantic and for Spanish settlers and entrepreneurs moving south and east from the Andes. Eventually, because of the relative ease of access into the region afforded by the Amazon and its tributaries and because of Portuguese-Brazilian territorial aggressiveness, the majority of the basin came under Portuguese control. Not until well after the colonial period, however, were the successor states able to agree on the extent of that control and the location of dividing lines.

Map 1

BRAZIL-VENEZUELA BOUNDARY

Brazil-Venezuela boundary

Other international boundary

0 50 100

Kilometers

Source: General Map of the Brazil-Venezuela Boundary Line. Brazilian-Venezuelan Mixed Boundary Demarcation Commission.

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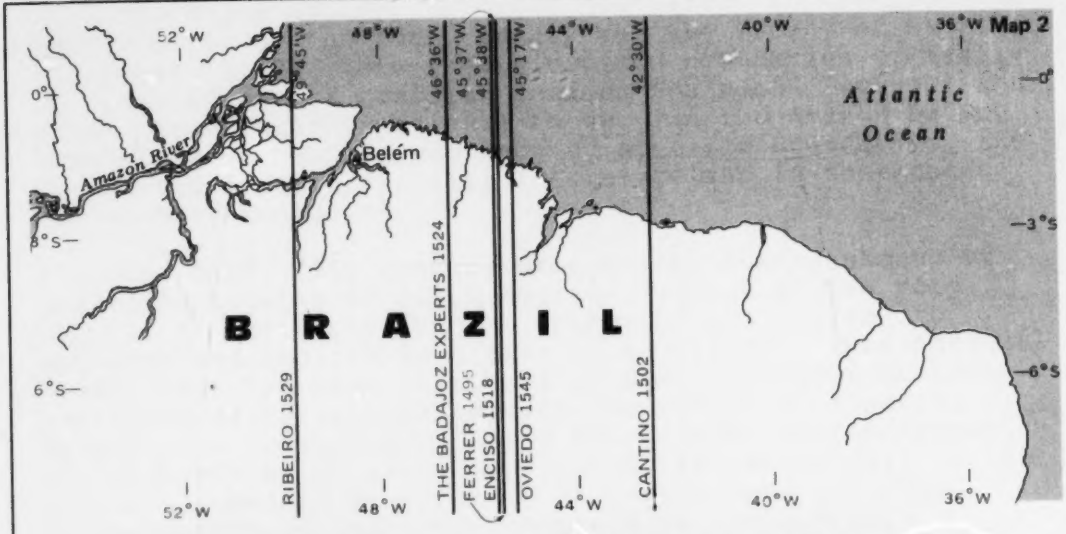
Guyana
MOUNT RORAIMA
GUIANA
Venezuela
SIERRA PACARAIMA
HIGHLANDS
Brazil
SIERRA PARIMA
Río Orinoco
Río Siapa
Río Yatua
Río Negro
Río Melamo
Río Ocamo
Río Padamo
Río Uraricoera
Río Urucuia
Río Majaca
Río Branco
Río Catrimani
Río Ajarani
Río Jatapu
Río Catrimani
Río Padauari
Río Jauaperi
Río Preto
Río Parima



TREATY OF TORDESILLAS
Demarcation Line Interpretations

Inaccurate maps, changing cartographic techniques, nationalistic bias, and imprecise language in the Treaty led to differing interpretations of the intended location of the Demarcation Line. Those depicted here were derived by Henry Harrisse based on his seminal study of important early attempts to delimit the Treaty boundary.

Source: Henry Harrisse, *The Diplomatic History of America*. London: B.F. Stevens, 1897.

Names and boundary representation are not necessarily authoritative.

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The major attempt to erect boundaries in the frontier region prior to the 19th century was the Treaty of San Ildefonso, 1777. This treaty defined boundaries primarily in areas of direct conflict between Spain and Portugal and where the geography was well known. In the Amazon basin, however, when mention was made of specific boundaries, the descriptions were typically inaccurate and in some cases led to more confusion.

The early 19th century brought the establishment of new nation-states to South America. These states were jealous of their territorial integrity and anxious to maximize and legitimize claims of sovereignty over marginal areas. For the most part, the Spanish successor states, including Nueva Grenada (modern-day Colombia, Ecuador, Panama, and Venezuela), feared territorial aggrandizement at the hands of Brazil which, until the latter part of the century, remained an empire. The Brazilians had shown themselves to be intrepid explorers of the sparsely populated reaches of the continent and appeared bent on incorporating the whole of the area east of the Andes into a greater Brazilian sphere.

Still, despite these attitudes and despite the lack of any legal restrictions, historical maps of the upper Rio Negro and the upper Rio Branco reveal that Brazilian settlers never effectively occupied or even attempted to occupy land north of the modern Brazil-Venezuela border. Penetration beyond the watershed was deterred by the existence of the tangled series of highland ridges separating two of the continent's major river systems, the Amazon and the Orinoco, the difficulty of travel along the upper reaches of the tributaries of the Amazon, and the absence of any clearly identifiable sources of immediate wealth.

While Venezuela was a part of Nueva Granada, it was unable to negotiate individually with Brazil concerning their mutual boundary. No boundary treaty between Nueva Granada and Brazil was agreed to and properly ratified.

After achieving separation from Nueva Granada in the early 1830s, Venezuela invited Brazil to define a common boundary. Because of political conditions within Venezuela at the time, nothing was accomplished until the 1850s. In 1852 Brazil and Venezuela concluded a treaty of limits and fluvial navigation defining a boundary similar to that which exists today. This treaty, however, failed to receive the necessary ratification from the Venezuelan congress, necessitating another treaty in 1859.

Both these treaties were based on the principle of uti possidetis of the colonial period. This concept held that sovereignty rightly should be based on occupation, utilization, and effective integration of territory rather than verbal or paper claims. The existence of settlements or properly mapped areas of rural land use or resource exploitation were regarded as paramount. With one exception, Venezuela and Brazil were easily able to determine the basic extent of their individually occupied and possessed territories because of the break in penetration from the core areas of each country created by the Amazon-Orinoco watershed divide.

The exception was in the western sector of the modern boundary in the vicinity of the Colombian tripoint. Here, early maps often mistakenly showed a westward extension of the Sierra Imeri-Sierra Tapira Peco range fading into the eastern margins of the llanos. Such a ridge would have cut through the upper Rio Negro near Piedra del Cucuy (Cucuy Rock), a distinctive outcrop mount on the east bank of the upper Rio Negro whose existence had suggested the cordillera extension in the first place. Later, when the topography of the area became better known, the boundary was described so as to continue to cross the Rio Negro in this area.

The 1859 Treaty of Limits and Fluvial Navigation signed in Caracas defined, with minor exceptions, the contemporary boundary between Venezuela and Brazil. When this treaty was negotiated, Brazil and Venezuela adjoined in an area later awarded to Colombia by the King of Spain's 1891 arbitration. Ironically, the defunct portion of the boundary, westward from the Rio Negro to the headwaters of the Rio Memachi, had been the focus of a mixed Brazil-Venezuela boundary commission operating in the region in the 1880s, a commission whose work was not recognized by Venezuela.

Protocols signed in 1905, 1912 and, in particular, in 1928 clarified language in the 1859 accord but made no substantial changes in the boundary definition. These protocols devoted the majority of their attention to the demarcation of the frontier, which had remained unfinished throughout the 19th century. Only after the 1928 protocol were the proper mixed boundary commissions formed and the work of demarcating the line completed. Today, mixed boundary teams continue to locate boundary markers along the border. This process of densification, in which more than 1,300 markers have been mutually located, is expected to continue.

Geographical Setting

Although the boundary definition was not disputed in the period after the 1859 treaty, the location of various critical turning points and geographical entities was. In fact, the geography of the frontier region was incompletely known until well into the 20th century; even today, some doubts remain about the precise location of the sources of various rivers or proper coordinates for known mountain peaks.

Underlying this uncertainty is a rugged, isolated, thinly populated, poorly integrated region practically impossible to cross. Successive boundary commissions, beginning in 1880, encountered difficulties in surviving, let alone exploring and mapping the area. In many instances, boundary commission personnel were among the first Europeans to set foot in the area cut by the boundary. The difficulty of operating in these most isolated and rugged of South America's highland forests is illustrated by the salaries required to attract qualified personnel to the task. Venezuela paid its commission head $1,200 per month and his assistant $600 per month, small fortunes in those days.

Further testimony to the tribulations faced by the boundary teams is available at the headquarters of the Comissao Brasileira Demarcadora de Limites in Belem, Brazil: An entire wall is lined with the spears hurled at commission members during one campaign incident. Original documents, such as campaign logs, diaries, handwritten official reports, and materials manifests attest to the fact that the various expeditions sent to demarcate the boundary were in every way comparable to exploration campaigns. The successful placement of the early boundary markers indeed was a remarkable binational achievement.

For most of its length, the boundary passes through the Guiana Highlands, a mountainous mass composed of one of the world's largest granite blocks. The ridge crests of the Sierra Pacaraima and the Sierra Parima reach altitudes of more than 2,300 meters; Mount Roraima, the eastern terminus of the dividing line, exceeds 2,700 meters. Eons of erosion have left a tangled mass of highlands, plateaus, and valleys in the geologically ancient bedrock of the entire region. Gigantic flat-topped mountains called tepuis, some reaching altitudes of more than 2,600 meters, are scattered throughout the area in places where isolated erosion-resistant materials cap more erosion-prone surroundings. In the eastern sector of the frontier

region, tepuis encircle the highland plain (altiplano) known as La Gran Sabana, a relatively treeless plateau with savanna-type vegetation.

The region through which the boundary passes was and is inhabited primarily by indigenous Indian groups, many of whom remain disassociated from the outside world. In the seemingly endless forests that predominate along the border, many groups still practice slash and burn agriculture. Others, such as the Waica (Waika), perhaps the most numerous single group with an estimated transborder population of 2,000, apparently practice no agriculture or horticulture, maintaining themselves with a hunting-gathering-fishing economy. Little is known about the inhabitants of some locales, such as the upper reaches of the Rio Branco, traditional home of the recently rediscovered, legendary Yanomamo tribe.

Boundary Alignment

Article 2, paragraph 1 of the 1859 Brazil-Venezuela treaty signed in Caracas describes the now-defunct portion of the boundary--that is, the segment comprising the easternmost portion of the Brazil-Colombia border. When the treaty was signed, Brazilian leaders were well aware that this area was in dispute and insisted on inserting a clause exonerating Brazil of prejudicing Colombia's claim to the "territory west of the Rio Negro" by executing the accord with Venezuela. Not satisfied, Colombia protested the 1859 treaty.

Paragraphs 2 and 3 of the 1859 Treaty of Limits and Fluvial Navigation delimit the boundary line as follows:

> "From the Island of San Jose it shall proceed in a straight line dividing the water course of Maturaca midway, or at the point agreed upon by the Commissioners of demarkation, and which may conveniently divide that watercourse, and from thence passing the groups of the hills Cupy, Imeri, [and] Guay...it shall cross the road which connects the river Castanho with the Marari and by the mountain of Tapira Peco, taking the crests of the ridge of Parima, so that the waters which flow to the Padauari, Marari and Cauaburi continue to belong to Brazil, and those which go to the...Siapa to Venezuela."

> "It shall proceed from the summit of the mountain Parima to the angle which it forms with that of Pacaraima, so that all the waters which flow to the Rio Branco still belong to Brazil; and those that flow to the Orinoco, to Venezuela; and the line shall continue on the most elevated points of the said mountain ridge of Pacaraima, so that the waters running to the Rio Branco still belong, as stated, to Brazil; and those which flow to the...Caroni to Venezuela, up to the point to which the territory of the two States extend in their eastern part."

The 1859 treaty also authorized each country to appoint a commissioner to work on demarcation of the line. Fully acknowledging the paucity of accurate information on the frontier, the treaty empowered the commissioners to adjust the line where it was "convenient" to do so or where inaccurate maps had led to erroneous designations of boundary landmarks. Because of political problems within Venezuela and, to a lesser extent, Brazil, this commission did not convene until late 1879. It then worked sporadically on the line segment west of Sierra Cupy until 1882. From 1882 until 1884 the Brazilian delegation worked alone on the remainder of the line, concentrating its efforts in the Rio Branco basin. The map it produced was not accepted by Venezuela, leaving in doubt all work accomplished to that point.

In 1905 Brazil and Venezuela signed a protocol recognizing the "demarcation made in common" in 1880 of the frontier from Cucuy Rock to Mount Cupy. Subsequently, both countries acknowledged that 1) this work was probably inaccurate owing to the method by which the boundary turning point coordinates were calculated, and 2) neither country had a "full knowledge" of the precise location of the line. A 1912 protocol sought to remedy the uncertainty concerning the Cucuy-Cupy segment, for all practical purposes the only part of the boundary where frequent human crossings occurred and the only sector likely to be the site of measurable commercial activity. The Mixed Commission resulting from this protocol located two markers on the left bank of the Rio Negro near San Jose Island and two near Hua Falls in the Maturaca channel, a point 19.6 kms southwest of Mount Cupy; it also calculated the geodesic line between the Rio Negro and Hua Falls.

A final demarcation protocol was executed in Rio de Janeiro in 1928. This document established a mixed commission and obligated it to "...erect, along the entire extent of the frontier, as many marks as appear necessary

in order that the local authorities and the inhabitants of the surrounding district should have a clear knowledge of the boundary line." The protocol accepted the boundary delimitation contained in the 1859 treaty and the Cucuy-Hua segment as established by the 1912-15 Mixed Commission. Still, before initiating its work at the Mount Roraima terminus, the new Mixed Commission verified the Cucuy-Hua segment, modified slightly the coordinates determined for the extant markers, erected additional monuments along the geodesic, and calculated an extension of the line northwestward to its intersection with the Brazil-Colombia border in the thalweg of the Rio Negro.

By 1934, when its efforts were interrupted by the departure of the Venezuelan contingent, the commission had demarcated 165 kms of the line westward from the Brazil-Venezuela-Guyana tripoint on Mount Roraima. The topography and isolation of the watershed ridges had presented a formidable challenge for the commission, whose Brazilian chief had described the area as one of "neither cultivation nor population." Subsequently, it was decided to attempt to use aerial surveys of the region to assist in demarcating the line.

Pioneering air reconnaissance missions were conducted in the area in 1939 and 1940, and the information gathered provided the basis for ultimate completion of the demarcation. Still, the work was frequently interrupted and often abandoned for years at a time, testimony to the region's difficult terrain and relative isolation. Only in the 1970s was the demarcation satisfactorily completed, and the work of increasing the number of markers along the border is still proceeding.